

J1017 U.S. PTO
07/25/01

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PATENT APPLICATION
TRANSMITTAL

(Only for new nonprovisional applications under 37 C.F.R. § 1.53(b))

Attorney Docket No. HER-1

First Inventor or Application Identifier A. Papathanasiou
Title Adaptive Filter for Communication System

Express Mail Label No.

APPLICATION ELEMENTS

See MPEP chapter 600 concerning other patent application contents

1. Fee Transmittal Form (e.g., PTO/SB/17)
(Submit an original and a photocopy for fee processing)

2. Specification (Total Pages 12)
(preferred arrangement set forth below)

- Descriptive title of the Invention
- Cross References to Related Applications
- Statement Regarding Fed sponsored R & D
- Reference to Microfiche Appendix
- Background of the Invention
- Brief Summary of the Invention
- Brief Description of the Drawings (if filed)
- Detailed Description
- Claim(s)
- Abstract of the Disclosure

3. Drawing(s) (35 U.S.C. 113) (Total Sheets 12)

4. Oath or Declaration (Total Pages 2)

a. Newly executed (original or copy)

b. Copy from a prior application (37 C.F.R. § 1.63(d))
(for continuation/divisional min Box 16 completed)

i. DELETION OF INVENTOR(S)
Signed statement attached deleting
inventor(s) named in the prior application.
see 37 C.F.R. §§ 1.63(d)(2) and 1.33(b).

NOTE FOR ITEMS 1 & 13: IN ORDER TO BE ENTITLED TO PAY SMALL ENTITY FEES, A SMALL ENTITY STATEMENT IS REQUIRED (37 C.F.R. § 1.27), EXCEPT IF ONE FILED IN A PRIOR APPLICATION IS RELIED UPON (37 C.F.R. 1.28).

16. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment:

Continuation Divisional Continuation-in-part (CIP) of prior application No: _____

Prior application information: Examiner _____ Group / Art Unit: _____
For CONTINUATION or DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 4b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

17. CORRESPONDENCE ADDRESS

 Customer Number or Bar Code Label

(Insert Customer No. or Attach bar code label here)

or Correspondence address below

Name

Hung Chang LIN

Address

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City Silver Spring

State Maryland

Zip Code 20903

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Telephone 301-434-3571

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Name (Printed) Hung Chang LIN

Registration No. (Attorney/Agent) 28,789

Signature

Hung Chang LIN

Date July 24 2001

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Box Patent Application, Washington, DC 20231.

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FEE TRANSMITTAL

TOTAL AMOUNT OF PAYMENT (\$ 395.00

Complete If Known

Application Number	
Filing Date	
First Named Inventor	A. Papathanasiou
Group Art Unit	
Examiner Name	
Attorney Docket Number	HER-1

METHOD OF PAYMENT (check one)

1. The Commissioner is hereby authorized to charge indicated fees and credit any over payments to:

Debtor Account Number

Debtor Account Name

Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17 Charge the Issue Fee Set in 37 CFR 1.18 at the Meeting of the Notice of Allowance, 37 CFR 1.311(b)

2. Payment Enclosed:

Check Money Order Other

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large Entity Fee	Small Entity Fee	Fee Description	Fee Paid
Fee Code (S)	Fee Code (S)		
103 130	203 65	Surcharge - basic filing fee or oath	
127 50	227 25	Surcharge - basic provisional filing fee or cover sheet	
138 130	139 130	Non-English specification	
147 2,390	147 2,390	For filing a request for reexamination	
112 570*	112 570*	Requesting publication of SIR prior to Examiner action	
113 1,740*	113 1,740*	Requesting publication of SIR after Examiner action	
115 110	215 55	Extension for response within first month	
116 380	218 190	Extension for response within second month	
117 900	217 460	Extension for response within third month	
118 1,400	218 700	Extension for response within fourth month	
119 290	219 145	Notice of Appeal	
120 290	229 145	Filing a brief in support of an appeal	
121 250	221 125	Request for oral hearing	
128 1,430	138 1,430	Petition to institute a public use proceeding	
140 110	240 55	Petition to revive unallowably abandoned application	
141 1,250	241 625	Petition to revive unreasonably abandoned application	
142 1,250	242 625	Utility issue fee (or issue)	
143 430	243 215	Design issue fee	
144 630	244 315	Plant issue fee	
122 130	122 130	Petitions to the Commissioner	
123 50	123 50	Petitions related to provisional applications	
128 220	128 220	Submission of Information Disclosure Stmt	
581 40	581 40	Recording each patent assignment per property (times number of properties)	40
146 750	246 375	Filing a submission after final rejection (37 CFR 1.129(a))	
149 750	249 375	For each additional invention to be examined (37 CFR 1.129(b))	
Other fee (specify) _____			
Other fee (specify) _____			
SUBTOTAL (2) (\$)		SUBTOTAL (3) (\$)	40

* Reduced by Basic Filing Fee Paid

SUBMITTED BY		Complete if applicable	
Typed or Printed Name	Hung Chang LIN	Reg. Number	28,739
Signature	Hung Chang LIN	Date	7/24/01
		Deposit Account User ID	

References

- [1] S. Haykin, *Adaptive filter theory*, Prentice Hall, Englewood Cliffs, 2nd Ed., 1991.
- [2] E. Frantzeskakis and K.J.R. Liu, "A Class of Square Root and Division Free Algorithms and Architectures for QRD-Based Adaptive Signal Processing", *IEEE Trans. on Signal Processing*, vol 42, no 9, pp.2455-2469, September 1994.
- [3] K.J.R. Liu, S.F. Hsieh, and K. Yao, "Systolic Block Householder Transformation for RLS Algorithm with Two-Level Pipelined Implementation", *IEEE Trans. on Signal Processing*, Vol 40, No 4, pp.946-958, April 1992.
- [4] A. Lee, "Centrohermitian and skew-centrohermitian matrices", *Linear Algebra and its Applications*, vol. 29, pp. 205-210, 1980.
- [5] S.L. Marple, Jr, *Digital spectral analysis with applications*, Prentice-Hall, Englewood Cliffs, New Jersey, 1987
- [6] A. Klein and P.W. Baier, "Linear unbiased data estimation in mobile radio systems applying CDMA", *IEEE Journal on Selected Areas in Communications*, vol. 11, pp. 1058-1066, 1993.